



1213.43573X00

THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: Naoki WATANABE

Serial No.: 10/791,734

Filed: March 4, 2004

For: DATA MIGRATION METHOD

**PETITION TO MAKE SPECIAL
UNDER 37 CFR 1.102(d) and MPEP. §708.02, VIII**

MS Petition

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

March 24, 2005

Sir:

1. Petition

Applicants hereby petition to make this application **Special**, in accordance with 37 CFR §1.102(d) and MPEP 708.02, VIII. The present invention is a new application filed in the United States Patent and Trademark Office on March 4, 2004 and as such has not received any examination by the Examiner.

2. Claims

Applicants hereby represent that all the claims in the present application are directed to a single invention. If upon examination it is determined that all the claims presented are not directed to a single invention, Applicants will make an election without traverse as a prerequisite to the granting of special status.

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3. Search

Applicants hereby submit that a pre-examination search, a copy of which is attached, has been made by a professional searcher in the following classes and subclasses:

<u>Class</u>	<u>Subclasses</u>
707/	1
710	5
711	112, 161, 162

The above subclasses represent areas deemed to contain subject matter of interest to one or more of the search features. Please note that relevant references may be classified outside of these areas. The integrity of the search is based on the records as presented to us by the United States Patent and Trademark Office (USPTO). No further integrity studies were performed.

4. Copy of References

A listing of all references found by the professional searcher is provided by a Form PTO-1449 and copies of the references and the Form PTO-1449 are submitted as part of an Information Disclosure Statement (IDS) filed on even date.

5. Detailed Discussion of the References and Distinctions Between the References and the Claims

Below is a discussion of the references uncovered by the search and cited in the IDS filed on even date that appear to be most closely related to the subject matter encompassed by the claims of the present application, and which discussion particularly points out how Applicants' claimed subject matter is distinguishable over those

references. All other references uncovered by the search and cited in the IDS filed on even date are **not** treated in detail herein.

a. Detailed Discussion of the References

Ofek et al. '640 (U.S. Patent No. 5,680,640), shows a system for migrating data from an old storage system to a new storage system by connecting the new storage system to the old storage system and to a host computer, disconnecting the old storage system from the host computer, initializing a data element map or table to a predetermined state indicating data elements stored in the old storage system and the new storage system, and upon receipt of a request (read or write), determining based on the data element map or table whether the requested data is stored in the old or new storage system. (see Figs. 1-3, col. 2, lines 13-31, col. 4, lines 13-33, col. 5, lines 1-8 and 35-55).

Parks, et al. (U.S. Patent No. 6,598,174), shows a method and apparatus for storage unit replacement in a non-redundant array. It further shows that when data is moved to a new storage array, read and write requests for those portions of the data will be directed to the new storage array while requests for other data portions will be directed to the old storage array. (see col. 3, lines 29-47, col. 8, lines 23-40).

Fujibayashi et al (U.S. Patent No. 6,640,291) shows an apparatus and method for online data migration with remote copy, having a host computer, an old storage system, a new storage system and a connection. It further shows migration of data and the remote copy configuration information from an old primary storage system to a new primary storage system, processing read and write requests from the host computer via a connection at the new primary storage system while conducting the migration, and

disconnecting the old primary storage system from the host computer. (see Figs. 1, 2 and 4, col. 1, lines 51-67 and col. 3, lines 22 and col. 5, line 4)

Obara (U.S. Patent Application Publication No. 2004/0158652) shows a data migration method, protocol converter and switching apparatus. It further shows an online data migration facility which copies data from an old storage system into a new storage system, while continuing the read/write of data from a computer to the old storage system. (see Fig. 1 and paragraphs [0016]-[0030] – [0032], and [0064]-[0067].

b. Distinctions Between the References and the Claims

The present invention as recited in the claims is not taught or suggested by any of the above noted references whether taken individually or in combination with each other or in combination with any of the other references of record.

The present invention as recited in the claims is directed to a method and system of migrating data from an old storage system to a new storage system in a data processing system including a plurality of host computers and a plurality of said storage systems. According to the present invention, the method of migrating data includes a route changing phase which is implemented before migration of the data from the old storage system to the new storage system, wherein in the route changing phase each host computer can access both the old storage system and the new storage system such that the new storage, in response to a read request from a host computer, reads data from the old storage system and sends the read data to the host computer, and in response to a write request from the host computer, writes data into the old storage system. Further, according to the present invention, a data migration phase is conducted after the route changing phase such

that a route is set in a manner to prohibit access from the host computer to the old storage system and permit access from the host computer to the new storage system.

The above described features of the present invention as recited in the claims are not taught or suggested by any of the above described references or any of the other references of record whether taken individually or in combination with each other. Particularly, the above described features of the present invention as recited in the claims are not taught or suggested by, for example, Ofek et al '640. Ofek et al '640 as described above, teaches a system for migrating data from an old storage system to a new storage system by connecting the new storage system to the old storage system and to the host computer, disconnecting the old storage system from the host computer, initializing a data element map or table in the new storage system so as to indicate the data elements stored on the old storage system and the new storage system, and determining, based on the data element map or table, whether the requested data is stored in the old storage system or the new storage system.

As is clear, the features of the present invention as recited in the claims particularly as regards the provision of a route changing phase being conducted prior to the data migration phase, wherein access between each host computer and both of the old and new storage systems are not taught or suggested by Ofek et al '640. Ofek et al '640 requires that the old storage system be connected to the new storage and then disconnected from the host computer. Thus, in Ofek et al '640 it would be impossible for the host computer to independently access either the old storage system or the new storage system prior to the data migration phase as in

the present invention since in Ofek et al '640 the old storage system is disconnected from the host computer.

Thus, the features of the present invention as recited in the claims are not taught or suggested by Ofek et al '640 whether taken individually or in combination with any of the above described references or any of the other references of record.

The above described deficiencies of Ofek et al '640 are also evident in each of the above described references and each of the other references of record. Therefore, combining the teachings of Ofek et al '640 with any of the above described references or any of the other references of record would still fail to teach or suggest the features of the present invention as recited in the claims.

Therefore, based on the above, Applicants submit that the present invention as recited in the claims is allowable over the above described references and the other references of record whether taken individually or in combination with each other.

6. Conclusion

Applicant has conducted what it believes to be a reasonable search, but makes no representation that "better" or more relevant prior art does not exist. The United States Patent and Trademark Office is urged to conduct its own complete search of the prior art, and to thoroughly examine this application in view of the prior art cited herein and any other prior art that the United States Patent and Trademark Office may locate in its own independent search. Further, while Applicant has identified in good faith certain portions of each of the references listed herein in order to provide the requisite detailed discussion of how the claimed subject matter

is patentable over the references, the United States Patent and Trademark Office should not limit its review to the identified portions but rather, is urged to review and consider the entirety of each reference, and not to rely solely on the identified portions when examining this application.

In view of the foregoing, Applicant requests that this Petition to Make Special be granted and that the application undergo the accelerated examination procedure set forth in MPEP 708.02 VIII.

7. Fee (37 C.F.R. 1.17(i))

The fee required by 37 C.F.R. § 1.17(i) is to be paid by:

☒ the Credit Card Payment Form (attached) for \$130.00.

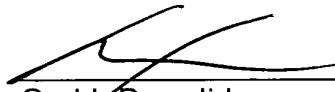
☐ charging Account _____ the sum of \$130.00.

A duplicate of this petition is attached.

Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, or credit any overpayment of fees, to the deposit account of MATTINGLY, STANGER, MALUR & BRUNDIDGE, P.C., Deposit Account No. 50-1417 (1213.43573X00).

Respectfully submitted,

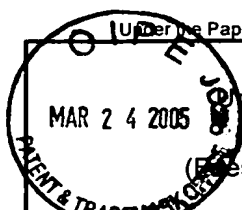
MATTINGLY, STANGER, MALUR & BRUNDIDGE, P.C.



Carl J. Brundidge
Registration No. 29,621

CIB/jdc
Enclosures

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

 <p>PETITION FEE Under 37 CFR 1.17(f), (g) & (h) TRANSMITTAL (Fees are subject to annual revision) Send completed form to: Commissioner for Patents P.O. Box 1450, Alexandria, VA 22313-1450</p>	Application Number	10/791,734
	Filing Date	March 4, 2004
	First Named Inventor	N. WATANABE
	Art Unit	
	Examiner Name	
	Attorney Docket Number	1213.43573X00


Enclosed is a petition filed under 37 CFR §1.102(d) that requires a processing fee (37 CFR 1.17(f), (g), or (h)). Payment of \$ **130.00** is enclosed.

This form should be included with the above-mentioned petition and faxed or mailed to the Office using the appropriate Mail Stop (e.g., Mail Stop Petition), if applicable. For transmittal of processing fees under 37 CFR 1.17(i), see form PTO/SB/17i.

Payment of Fees (small entity amounts are NOT available for the petition (fees))

- ☒ The Commissioner is hereby authorized to charge the following fees to Deposit Account No. 50-1417:
- ☐ petition fee under 37 CFR 1.17(f), (g) or (h) ☒ any deficiency of fees and credit of any overpayments
- Enclose a duplicative copy of this form for fee processing.
- ☐ Check in the amount of \$ _____ is enclosed.
- ☒ Payment by credit card (From PTO-2038 or equivalent enclosed). Do not provide credit card information on this form.

Petition Fees under 37 CFR 1.17(f): For petitions filed under: § 1.53(e) - to accord a filing date. § 1.57(a) - to according a filing date. § 1.182 - for decision on a question not specifically provided for. § 1.183 - to suspend the rules. § 1.378(e) for reconsideration of decision on petition refusing to accept delayed payment of maintenance fee in an expired patent. § 1.741(b) - to accord a filing date to an application under §1.740 for extension of a patent term.	Fee \$400	Fee Code 1462
Petition Fees under 37 CFR 1.17(g): For petitions filed under: §1.12 - for access to an assignment record. §1.14 - for access to an application. §1.47 - for filing by other than all the inventors or a person not the inventor. §1.59 - for expungement of information. §1.103(a) - to suspend action in an application. §1.136(b) - for review of a request for extension of time when the provisions of section 1.136(a) are not available. §1.295 - for review of refusal to publish a statutory invention registration. §1.296 - to withdraw a request for publication of a statutory invention registration filed on or after the date the notice of intent to publish issued. §1.377 - for review of decision refusing to accept and record payment of a maintenance fee filed prior to expiration of a patent. §1.550(c) - for patent owner requests for extension of time in <u>ex parte</u> reexamination proceedings. §1.956 - for patent owner requests for extension of time in <u>inter partes</u> reexamination proceedings. § 5.12 - for expedited handling of a foreign filing license. § 5.15 - for changing the scope of a license. § 5.25 - for retroactive license.	Fee \$200	Fee code 1463
Petition Fees under 37 CFR 1.17(h): For petitions filed under: §1.19(g) - to request documents in a form other than that provided in this part. §1.84 - for accepting color drawings or photographs. §1.91 - for entry of a model or exhibit. §1.102(d) - to make an application special. §1.138(c) - to expressly abandon an application to avoid publication. §1.313 - to withdraw an application from issue. §1.314 - to defer issuance of a patent.	Fee \$130	Fee Code 1464

Name (Print/Type)	Carl I. Brundidge	Registration No. (Attorney/Agent)	29,621
Signature		Date	March 24, 2005

This collection of information is required by 37 CFR 1.114. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.